

TMA Roles & Responsibility Summary

Title	Summary	TMA Role	Comments								
Green House Gas Emissions											
EO 13514, Sec. 2 (a-c) (Obama)											
Reduction Target (Scope 1 and 2)	Within 90 days (Jan. 3, 2010), establish and report to the CEQ Chair and the OMB Director a percentage reduction target for agency-wide reductions of scope 1 and 2 greenhouse gas emissions in absolute terms by fiscal year 2020, relative to a FY 2008. In establishing the target, the agency head shall consider reductions associated with: (i) reducing energy intensity in agency buildings; (ii) increasing agency use of renewable energy and implementing renewable energy generation projects on agency property; and (iii) reducing the use of fossil fuels	Pending guidance and direction from DoD, TMA may have to establish targets and develop the 2008 baseline for TMA facilities; Once the target is established, support implementation and track progress.	<u>Scope 1</u> : direct greenhouse gas emissions from sources that are owned or controlled by the Federal agency; <u>Scope 2</u> : direct greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency								
Reduction Target (Scope 3)	Within 240 days (Jun. 2, 2010), establish and report to the CEQ Chair and the OMB Director a percentage reduction target for reducing scope 3 greenhouse gas emissions in absolute terms by fiscal year 2020, relative to a FY2008 baseline.	Pending guidance and direction from DoD, TMA may have to establish targets and develop the 2008 baseline for TMA facilities; Once the target is established, support implementation and track progress.	Submitted with the Strategic Sustainability Performance Plan <u>Scope 3</u> : greenhouse gas emissions from sources not owned or directly controlled by a Federal agency but related to agency activities such as vendor supply chains, delivery services, and employee travel and commuting								
Inventory and Reporting	Establish and report to the CEQ Chair and OMB Director a comprehensive inventory of absolute greenhouse gas emissions, including scopes 1, 2, and 3 emissions within 15 months of the date of this order (Jan. 2011) for fiscal year 2010, and thereafter, annually at the end of January, for the preceding fiscal year.	Pending guidance and direction from DoD, TMA may have to establish a greenhouse gas inventory; Develop report.	<u>Absolute greenhouse gas emissions</u> : total greenhouse gas emissions without normalization for activity levels, including any allowable consideration of sequestration								
Existing Buildings											
EISA Sec. 431											
Energy Efficiency	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #800000; color: white;">Fiscal Year</th> <th style="background-color: #800000; color: white;">% Reduction</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2006</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">2007</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">2008</td> <td style="text-align: center;">9</td> </tr> </tbody> </table>	Fiscal Year	% Reduction	2006	2	2007	4	2008	9	Track progress; include in annual report	
Fiscal Year	% Reduction										
2006	2										
2007	4										
2008	9										

Title	Summary		TMA Role	Comments														
	Requires Federal agencies to reduce total facility energy consumption per gross square foot as shown in the table.	<table border="1"> <tr><td>2009</td><td>12</td></tr> <tr><td>2010</td><td>15</td></tr> <tr><td>2011</td><td>18</td></tr> <tr><td>2012</td><td>21</td></tr> <tr><td>2013</td><td>24</td></tr> <tr><td>2014</td><td>27</td></tr> <tr><td>2015</td><td>30</td></tr> </table>	2009	12	2010	15	2011	18	2012	21	2013	24	2014	27	2015	30		
2009	12																	
2010	15																	
2011	18																	
2012	21																	
2013	24																	
2014	27																	
2015	30																	
EISA Sec. 432																		
Covered facilities (75% of energy use)	Agencies shall submit their lists of covered facilities not later than Jan. 1 2009 (DOE Evaluations Guidance, http://www1.eere.energy.gov/femp/regulations/guidance.html)		Maintain list of MTFs identified by each service															
Evaluations	<p>Energy managers must complete, for each calendar year, comprehensive energy and water evaluations for approximately 25 percent of covered facilities in a manner that ensures that an evaluation of each facility is completed at least once every four years</p> <p>The evaluations must assess opportunities for re/retro commissioning and contain a component addressing audits</p> <p>Auditing results will contain sufficient and actionable information on ECMs so that sound project decisions can be made (DOE Evaluation Guidance)</p> <p>DOE expects that each agency will complete 2009 evaluations by June 16, 2009. Agencies may count evaluations completed during the previous 2 calendar years toward the 25% due in 2009</p>		<p>TMA is funding four audits in FY09.</p> <p>Future TMA sponsored audits are undetermined</p>															
Implementation of identified ECMs	Energy managers may implement energy conservation measures within two years after the completion of each evaluation		<p>Confirm ECM implementation in MTFs and include in annual report</p> <p>Support project funding request through annual budget request, ECIP and other</p>															

Title	Summary	TMA Role	Comments
Follow up on implemented ECMs	<p>For each measure, energy managers shall ensure that</p> <ul style="list-style-type: none"> • Equipment is fully commissioned to be operating at design specifications, • An O&M and repair plan is in place and is followed, • Equipment and system performance is measured during its entire life • Energy and water savings are measured and verified <p>DOE provides guidance on commissioning, measurement and verification</p>	<p>sources</p> <p>Track progress, include in annual report. Provide O&M guidance (best practices/lessons learned)</p>	
Tracking System	<p>For each covered facility, the energy manager shall use a web-based tracking system to certify compliance with</p> <ul style="list-style-type: none"> • Energy and water evaluations • Implementation of identified energy and water measures • Follow-up on implemented measures <p>DOE web-based tracking tool is not yet available on the FEMP website.</p>	<p>Support inclusion of MTF data in the DOE web based tool, when it becomes available</p>	
Benchmarking	<p>Enter energy use data for each metered building that is (or is a part of) a Covered Facility into a building energy use benchmarking system, such as the ENERGY STAR Portfolio Manager or the Labs 21 Benchmark Tool</p> <p>DOE has not provided guidance to date, it is assumed that DOE recommends using the ENERGY STAR Portfolio Manager system The DoD Energy Manager's Handbook (7.2.6.2) indicates that DoD components are encouraged to participate in Energy Star building program</p>	<p>Enter MTF data in EStar Portfolio Manager</p>	
EISA Sec. 434			
Management of Federal Building Efficiency	<p>Major replacements of installed equipment (such as heating and cooling systems), or renovation or expansion of existing space, must employ the most energy efficient designs, systems, equipment and</p>	<p>Incorporate requirements into design requirements/specs Track progress</p>	

Title	Summary	TMA Role	Comments
	controls that are life-cycle cost effective		
Water Management			
EO 13514, Sec. 2 (d)			
Water Intensity Reduction Target	Improve water use efficiency and management by: reducing potable water consumption intensity by 2 % annually through FY 2020, or 26 % by the end of FY 2020, relative to the FY2007 baseline	Incorporate requirements into design requirements/specs Track compliance progress Provide best practices and guidance	Expands the EO 13423 water intensity reduction target (see below) <u>Water consumption intensity:</u> Water consumption per ft ²
Industrial, Landscaping and Agricultural Water	Reduce agency industrial, landscaping, and agricultural water consumption by 2% annually or 20% by the end of FY 2020 relative to a baseline of the agency's industrial, landscaping, and agricultural water consumption in FY 2010	Develop FY2010 baseline, Support implementation through design standards, guidance and other resources; Track and report progress	
EO 13423, Sec. 2(c)			
Water Intensity Reduction Target	Beginning in FY 2008, reduce water consumption intensity through life-cycle cost-effectiveness measures and sustainable facility design practices by 2 percent annually or 16 percent by the end of FY 2015 using FY 2007 as the baseline year	Incorporate requirements into design requirements/specs Track compliance progress Provide best practices and guidance	
DoD Energy Manager's Handbook (August 2005)			
Water BMPs	13.2.2. EO 13123 suggests the need for specific strategies that include development of a water management plan and adoption of at least four of the FEMP Water Best Management Practices (BMPs) http://www1.eere.energy.gov/femp/program/waterefficiency_bmp.html		Although EO13123 has been superseded, the BMP recommendation remains in place. FEMP BMPs are updated by EPA's Water Sense Program
EISA Sec. 438 and EO 13541 Sec. 2 and 14			
Storm Water Run Off	A) EISA 438 requires that the sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 ft ² shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume and duration of flow.	Incorporate requirements into design requirements/specs Track compliance progress Provide best practices and guidance	

Title	Summary	TMA Role	Comments												
	<p>B) EO 13514 Sec. 14 requires EPA to develop guidance for implementing this requirement within 60 days (Dec. 4, 2009)</p> <p>C) EO 13514 Sec. 2 requires agencies to implement and achieve the objectives identified in that EPA guidance</p>														
New Construction & Major Renovations															
EISA Sec. 433															
Fossil fuel use reduction	<p>New construction and major renovation projects are to be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared with such energy consumption by a similar building in fiscal year 2003 CBECS</p> <table border="1" data-bbox="464 686 926 915"> <thead> <tr> <th data-bbox="464 686 709 724">Fiscal Year</th> <th data-bbox="709 686 926 724">% Reduction</th> </tr> </thead> <tbody> <tr> <td data-bbox="464 724 709 764">2010</td> <td data-bbox="709 724 926 764">55</td> </tr> <tr> <td data-bbox="464 764 709 805">2015</td> <td data-bbox="709 764 926 805">65</td> </tr> <tr> <td data-bbox="464 805 709 846">2020</td> <td data-bbox="709 805 926 846">80</td> </tr> <tr> <td data-bbox="464 846 709 886">2025</td> <td data-bbox="709 846 926 886">90</td> </tr> <tr> <td data-bbox="464 886 709 915">2030</td> <td data-bbox="709 886 926 915">100</td> </tr> </tbody> </table>	Fiscal Year	% Reduction	2010	55	2015	65	2020	80	2025	90	2030	100	<p>Incorporate requirement into design</p> <p>Collect data to track progress</p> <p>When necessary, request exceptions from DOE (i.e., adjust goal downward)</p>	
Fiscal Year	% Reduction														
2010	55														
2015	65														
2020	80														
2025	90														
2030	100														
Sustainable Design principles	<p>Sustainable design principles shall be assigned to the siting, design and construction of new construction and major renovation projects</p> <p>Design & construction guidance is available through the Whole Building Design Guide website: http://www.wbdg.org/index.php DOE guidance can be found at http://www.wbdg.org/pdfs/hpsb_guidance.pdf</p>	<p>Ensure principles are applied</p> <p>Collect data when needed for certification</p>													
EO13514 Sec. 2 (g)															
High Performance Buildings	<p>(i) Beginning in 2020 and thereafter, ensure that all new Federal buildings that enter the planning process are designed to <u>achieve zero-net-energy by 2030</u>;</p> <p>(ii) Ensure that all new construction, major renovation, or repair and alteration of Federal buildings complies with the <i>Guiding Principles for Federal Leadership in</i></p>	<p>Incorporate into design specifications, planning process and construction documents</p>	<p>Guiding Principle were originally defined in an interagency MOU in 2006.</p>												

Title	Summary	TMA Role	Comments
	<p><i>High Performance and Sustainable Buildings</i> (Guiding Principles);</p> <p>(iii) Ensure that at least <u>15 percent of existing buildings</u> (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by FY 2015 and make annual progress toward 100-percent conformance with the Guiding Principles for its building inventory;</p> <p>(iv) Pursue <u>cost-effective, innovative strategies</u>, such as highly reflective and vegetated roofs, to minimize consumption of energy, water, and materials;</p> <p>(v) Manage <u>existing building systems</u> to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets' deferred maintenance costs;</p> <p>(vi) When adding assets to the agency's real property inventory, identify opportunities to consolidate and dispose of existing assets, optimize the performance of the <u>real-property portfolio</u>, and reduce associated environmental impacts;</p> <p>(vii) Ensure that rehabilitation of federally owned <u>historic buildings</u> utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings</p>		
EISA Sec. 523			
Solar Hot Water Heaters	Federal agencies are required to use solar hot water heaters for not less than 30 percent of demand where life-cycle cost effective.	Ensure compliance through design standards. Track progress Provide technical information and guidance re: solar hot water use in health care facilities	
EPA Act 05 Sec 109			
Efficiency Standards	If life-cycle cost-effective new and replacement buildings will be designed to achieve energy consumption levels that are at least 30 percent below the	Ensure compliance through design standards/require energy modeling	

Title	Summary	TMA Role	Comments
	levels established in the latest ASHRAE 90.1 standard	Track compliance progress	
EO 13423, Sec. 2(f)			
Guiding Principles	Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings, Memorandum of Understanding (Guiding Principles) (2006) into new facility construction and renovation projects. Ensure that 15 percent of the existing federal capital asset building inventory incorporates the sustainable practices in the Guiding Principles by the end of FY 2015	Track progress at MTFs	
EO 13514, Sec. 2 (f)			
Regional and Local Integrated Planning	(i) Participate in regional transportation planning and recognize existing community transportation infrastructure; (ii) Align Federal policies to increase the effectiveness of local planning for energy choices such as locally generated renewable energy; (iii) Ensure that planning for new Federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, and accessible to public transit, and emphasizes existing central cities and, in rural communities, existing or planned town centers; (iv) Identify and analyze impacts from energy usage and alternative energy sources in all Environmental Impact Statements and Environmental Assessments for proposals for new or expanded Federal facilities (v) Coordinate with regional programs for Federal, State, tribal, and local ecosystem, watershed, and environmental management.	Incorporate into design standards, address in EIAs, track progress	
Metering			
EPA Act 05 Sec. 103 EISA Sec. 434			
Advanced Metering	Install meters on Federal buildings to the maximum extent practicable by 10/1/12. At least 15% of facilities should be metered annually.	Track progress at MTFs Provide technical information e.g., best practices/lessons learned	

Title	Summary	TMA Role	Comments								
Advanced Metering	Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam	Provide technical information e.g., best practices/lessons learned. Track progress at MTFs									
EO 13423, Sec. 2(b)											
Metering Installation	Agencies should install metering devices that measure potable water, electricity and thermal energy. Data collected shall be incorporated into Federal tracking systems and be made available to facility managers. Agencies should consider inclusion of metering requirements in all ESPCs and UESCs										
DoD Energy Manager's Handbook (August 2005)											
Metering Installation	10.1 Each facility shall determine which facilities are cost effective for metering and document which facilities should be exempt. Ensure meters for new construction/renovations exceeding \$200K. Cost effectiveness based on whether metering maintenance is < 20% of yearly cost of utility being metered.										
Implement Mandate	10.3 By 2012, electricity, natural gas, and water shall be metered on appropriate facilities; steam will be metered in steam plants. Annually, installations should strive to install meters in at least 15% of facilities that are in noncompliance with this policy.										
Renewable Energy											
EPA Act 2005 Section 203(a)											
Renewable Electric Energy Consumption Goals	Requires federal renewable electricity consumption to not be less than the amounts listed in Table The amount of renewable energy can be doubled for counting purposes if the renewable <table border="1" data-bbox="625 1252 1058 1442" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Fiscal Year</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>2007–2009</td> <td>3%</td> </tr> <tr> <td>2010–2012</td> <td>5%</td> </tr> <tr> <td>2013 and beyond</td> <td>7.5%</td> </tr> </tbody> </table>	Fiscal Year	Percent	2007–2009	3%	2010–2012	5%	2013 and beyond	7.5%	Provide technical information e.g., best practices/lessons learned. Track progress at MTFs	
Fiscal Year	Percent										
2007–2009	3%										
2010–2012	5%										
2013 and beyond	7.5%										

Title	Summary	TMA Role	Comments
	energy is— <ul style="list-style-type: none"> ▪ Produced and used on-site at a federal facility. ▪ Produced on federal lands and used at a federal facility. ▪ Produced on Indian land as defined by federal law. 		
E.O. 13423, Sec. 2(b)			
New Renewable Sources	Modifies the EPAct 2005 renewable energy requirement. It requires that half of the renewable energy purchased in each fiscal year comes from “new renewable sources.” To the extent feasible, if an agency implements renewable energy generation projects, it shall do so on agency property for agency use.		
Performance Contracting			
EISA Sec. 512 & 513			
Funding and Implementation	Funding Options: Appropriations, ESPCs, USECs Federal agencies are restricted from limiting the duration of ESPCs to less than 25 years or limiting the amount of obligations	Provide technical information and guidance	
EISA Sec. 517			
Contracting Officer training	Related primarily to COs negotiating ESPCs	N/A: ESPC contracts negotiated by services	
EPAct Sec. 102			
Retained Savings	An agency may retain any funds appropriated to that agency for energy, water or wastewater treatment expenditures that are not made because of energy or water savings. Such funds may be used only for energy efficiency, water conservation or unconventional and renewable energy resources projects.	N/A: ESPC contracts negotiated by services	
Leasing			
EISA 435			
Leasing	Requirements for leasing Energy Star certified buildings.	N/A: TMA not involved in leasing	
Product Procurement			
EISA Sec. 524			
Standby Power	Directs agencies to purchase products that use not more	Include in	

Title	Summary	TMA Role	Comments
	<p>than one watt of standby power, or, if not available, the lowest wattage available. This applies only to commercially available, off-the-shelf products where life-cycle cost effective and practicable. Additionally, the Department of Energy will publish a list of cost effective eligible products that will be subject to this purchase requirement.</p>	<p>specifications/requirements</p>	
EPAAct Sec. 104			
Product Procurement	<p>Required to procure only ENERGY STAR or FEMP designated products and shall incorporate these criteria into the specifications for all procurements involving energy consuming products and systems. Includes requirements for electric motors. Exception may be granted by the agency head or designee when:</p> <ol style="list-style-type: none"> 1. An ENERGY STAR or FEMP product is not cost-effective over the life of the product taking energy cost savings into account 2. No ENERGY STAR or FEMP product is reasonable available that meets the functional requirements 	<p>Include in specifications/requirements</p>	
E.O. 13423, Sec. 2(d)			
Environmentally Preferable Purchasing	<p>Require, in agency procurement of goods and services, the use of sustainable environmental practices, including biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products The Instructions for Implementing Executive Order 13423 direct agencies to give preference in its procurement and acquisition programs to the purchase of the following:</p> <ul style="list-style-type: none"> ▪ ENERGY STAR products identified by DOE and the EPA, as well as FEMP-designated energy-efficient products. ▪ Water-efficient products, including those meeting EPA’s WaterSense standards. ▪ Energy from renewable sources. ▪ Environmentally preferable products and services, 	<p>Include in specifications/requirements</p>	

Title	Summary	TMA Role	Comments
	including EPEAT-registered electronic products.		
EO 13423, Sec. 2(h)			
	Requires that 95 percent of the electronic products purchased meet EPEAT standards where applicable Pursuant to the Instructions for Implementing Executive Order 13423, agencies should pursue the following objectives regarding high-performance buildings: Reduction in life-cycle cost of facilities' environmental and energy attributes. Improvement in energy efficiency, water conservation, and usage of renewable energy. Promotion of sustainable environmental stewardship.	N/A: TMA not involved in product procurement	
EO 13514, Sec. 2 (g)			
Sustainable Acquisition	Ensure that <u>95 percent</u> of new contract actions including task and delivery orders, for products and services, are energy-efficient (Energy Star or FEMP designated), water-efficient, bio-based, environmentally preferable (e.g., EPEAT certified), non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where such products and services meet agency performance requirements	Incorporate into TMA processes (e.g., HQ operations)	Consistent with earlier requirements
EO 13514, Sec. 2 (i)			
Electronics Stewardship	(i) Ensure procurement preference for <u>EPEAT-registered electronic products</u> ; (ii) Establish and implement policies to enable power management, duplex printing, and other <u>energy-efficient or environmentally preferable features</u> on eligible electronic products; (iii) Employ environmentally sound practices with respect to the disposition of excess or <u>surplus electronic products</u> ; (iv) Ensure the procurement of <u>Energy Star and FEMP designated</u> electronic equipment; (v) Implement <u>best management practices</u> for energy-efficient management of servers and Federal data centers	Incorporate into TMA processes	Consistent with earlier requirements
Other Energy Program Requirements			

Title	Summary	TMA Role	Comments
EO 13423, Sec 3(b)			
Environmental Management Systems	Implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities, including environmental aspects of energy and transportation functions	Provide input to DoD or TMA level EMS as requested	To date, no EMS-related requests, but existing metrics could be incorporated if necessary
EO 13514 Sec. 2 (j)			
Environmental Management Systems	Sustain environmental management, including by: (i) Continuing implementation of formal environmental management systems at all appropriate organizational levels; and (ii) Ensuring these formal systems are appropriately implemented and maintained to achieve the performance necessary to meet the goals of this order.	Provide input to DoD or TMA level EMS as requested	